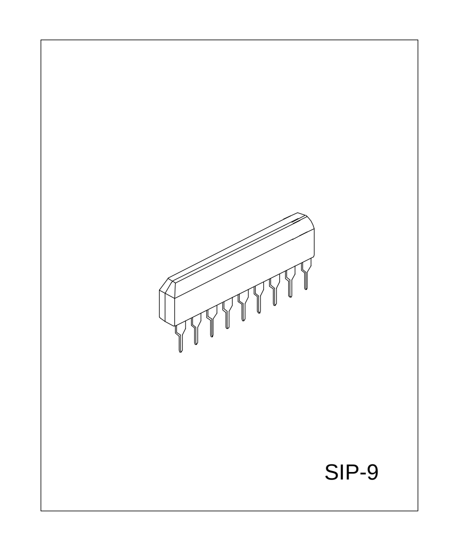
DUAL EQUALIZER AMPLIFIER WITH ALC

DESCRIPTION

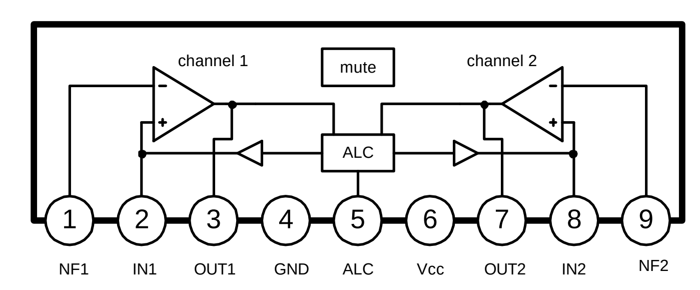
The UTC KA22241 is a monolithic integrated circuit, consisting of dual equalizer amplifier with ALC, and it is suitable for stereo radio cassette tape recorders.

FEATURES

*Dual equalizer amplifier with built-in ALC circuit
*Low noise V_{NI}=1.0μV(Typical)
*High open loop voltage gain: Gv=80dB(Typical)
*Good ALC response balance between channels
*Not necessary the input coupling capacitor
*Not necessary the diode or transistor for ALC
*Built in power supply muting circuit
*Minimum number of external parts required



BLOCK DIAGRAM



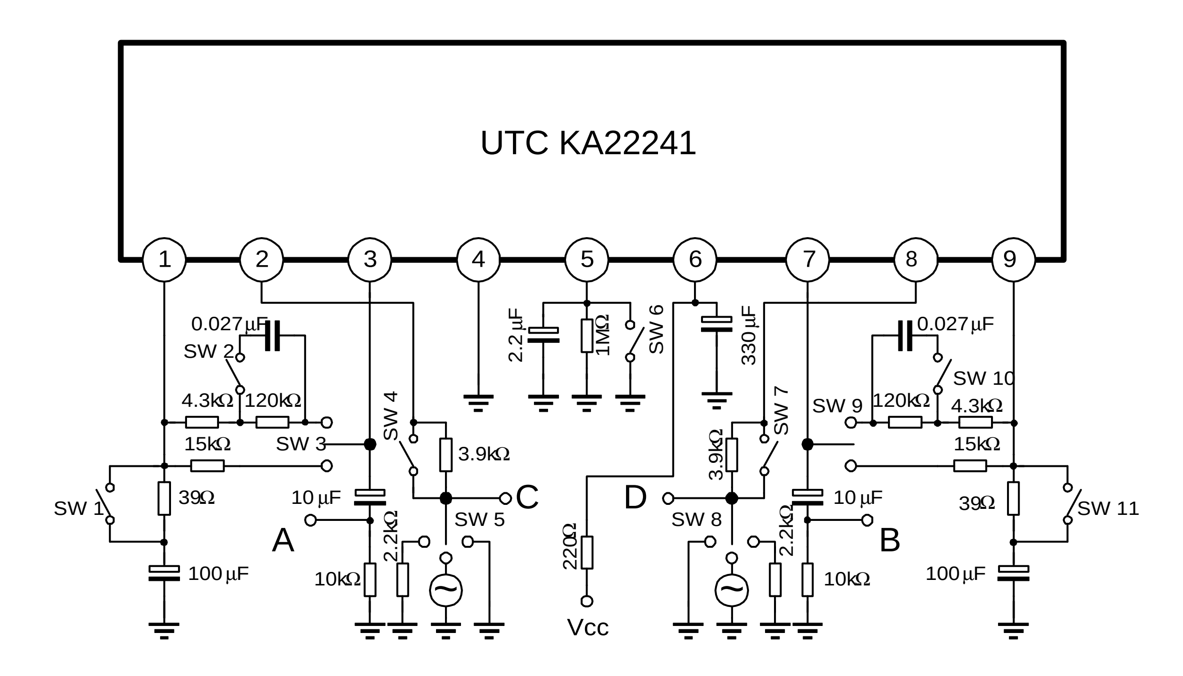
ABSOLUTE MAXIMUM RATING(Ta=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	VCC	16	V
Operating Temperature	TOPR	-20 to 75	°C
Storage Temperature	TSTG	-20 to 125	°C
Power Dissipation	PD	550	mW

ELECTRICAL CHARACTERISTICS(Ta=25°C, VCC=7V, f=1KHZ, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Quiescent Circuit Current	ICCQ	VI=0	1.5	3.5	4.5	mA
Open Loop Voltage Gain	GVO	VO=0.3V	70	80		dB
Closed Loop Voltage Game	GVC	VO=0.3V	45	48	50	dB
Output Voltage	VO	THD=1%	0.6	1.2		V
Total Harmonic Distortion	THD	VO=0.3V		0.1	0.3	%
Input Noise Voltage	VNI	RO=2.2KΩ BW(-3dB)=20HZ¡ 20KHZ		1.0	2.0	µV
Input Resistance	RI		15	25	45	kΩ
ALC Range	¦ VALC	RO=3.9KΩ,THD=10%	40	45		dB
ALC Balance	CBALC	VI=1mV		0	2.5	dB

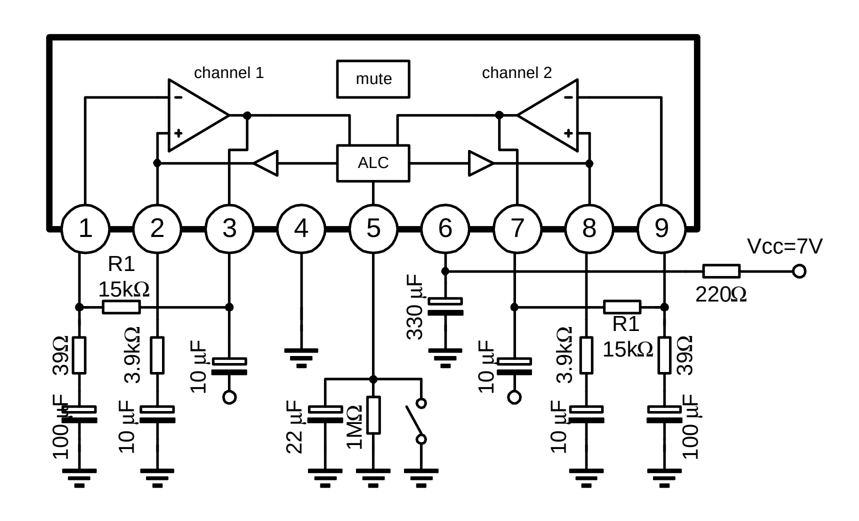
TEST CIRCUIT



TEST METHOD

SYMBOL	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW9	SW10	SW11
I_{CCQ}	ON	OFF	1	ON	3	ON	ON	3	1	OFF	ON
G_{VO}	ON	OFF	1	ON	1	ON	ON	3	1	OFF	ON
G_{VC}	OFF	ON	1	ON	1	ON	ON	3	1	OFF	ON
THD	OFF	ON	1	ON	1	ON	ON	3	1	OFF	ON
V_O	OFF	ON	1	ON	1	ON	ON	3	1	OFF	ON
V_{NI-1}	OFF	ON	1	ON	2	ON	ON	3	1	OFF	ON
V_{NI-2}	ON	OFF	1	ON	3	ON	ON	2	1	ON	OFF
V_{ALC}	OFF	OFF	2	OFF	1	OFF	ON	3	1	OFF	ON
CB_{ALC}	OFF	OFF	2	OFF	1	OFF	OFF	1	2	OFF	ON

APPLICATION CIRCUIT



Note: On playback, connect the time constant circuit as follows below, instead of R1, R2 of PINS 1-3, 7-9, which are used in the NAB.

